

Serial No. 09/054,864
Reply Filed: September 16, 2003

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows, including canceling claims 7-8 and 17-18 without prejudice to the underlying subject matter, and adding claims 19-41.

1-4. Cancelled.

5. (Currently Amended) A ~~video processing~~ host device for transferring data to a video processing device over a high speed serial bus using frame by frame flow control, comprising:

a memory;

an input for receiving request packets from ~~a second~~ the video processing device over the high speed serial bus, wherein each request packet indicates a request from indicating the second video processing device is capable of receiving data to transfer a frame of video data, and wherein ~~[[a]]~~ each request packet includes a stream identifier ~~indicating a source for reading data from the memory in the video processing device;~~ and

an output for sending, in response to a request packet, a plurality of data packets including video data for the requested frame from the source memory to the second video processing device over the high speed serial bus when data is available from the source, wherein ~~[[a]]~~ each data packet includes ~~[[a]]~~ the stream identifier ~~for the second video device and a boundary signal portion including a boundary signal indicating that the data packet ends with a last component of the read data.~~

6-18. Cancelled.

19. (New) The host device of claim 5, wherein data representing a component of the video data has a precision greater than a byte and wherein the data representing the component of the video data is packed into bytes in the plurality of data packets.

20. (New) The host device of claim 19, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

Serial No. 09/054,864

Reply Filed: September 16, 2003

21. (New) The host device of claim 5, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the video data.

22. (New) The host device of claim 5, wherein a data packet in the plurality of data packets includes a boundary signal indicating whether the data packet includes a last component of the video data of the requested frame.

23. (New) The host device of claim 5, wherein the host device further sends, through the output, a data packet including a command field indicating a command to the video processing device.

24. (New) A video processing device for transferring data from a host device over a high speed serial bus using frame by frame flow control, comprising:

a memory;

an output for sending request packets to the host device over the high speed serial bus to request transfer of video data, wherein each request packet includes a stream identifier and requests a frame of the video data; and

an input for receiving a plurality of data packets from the host device over the high speed serial bus in response to each request packet, wherein each data packet includes the stream identifier and wherein the plurality of data packets include video data for the frame requested by the request packet, and for transferring the received video data to the memory.

25. (New) The video processing device of claim 24, wherein a component of the video data has a precision greater than a byte and wherein the component of the video data is packed into bytes in the plurality of data packets.

26. (New) The video processing device of claim 25, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

Serial No. 09/054,864

Reply Filed: September 16, 2003

27. (New) The video processing device of claim 24, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the received video data.

28. (New) The video processing device of claim 24, wherein a data packet in the plurality of data packets includes a boundary signal if the data packet includes a last component of the video data of the requested frame.

29. (New) The video processing device of claim 24, wherein the input further receives a data packet including a command field indicating a command to the video processing device.

30. (New) A method for transferring video from a host device to a video processing device over a high speed serial bus using frame by frame flow control, performed by the video processing device for each frame of video data in a requested video sequence, comprising:

 sending a request packet including a stream identifier over the high speed serial bus to the host device to request a frame of video data;

 receiving a plurality of data packets over the high speed serial bus after receipt by the host device of the request packet, wherein the plurality of data packets include video data for the frame and the stream identifier; and

 repeating the steps of sending and receiving for each frame of the requested video sequence.

31. (New) The method of claim 30, wherein a component of the video data has a precision greater than a byte and wherein the component of the video data is packed into bytes in the plurality of data packets.

32. (New) The method of claim 31, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

Serial No. 09/054,864

Reply Filed: September 16, 2003

33. (New) The method of claim 30, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the video data.

34. (New) The method of claim 30, wherein a data packet in the plurality of data packets includes a boundary signal if the data packet includes a last component of the video data of the requested frame.

35. (New) The method of claim 30, further comprising receiving from the host device a data packet over the high speed serial bus including a command field indicating a command to the video processing device.

36. (New) A method for transferring video from a host device to a video processing device over a high speed serial bus using frame by frame flow control, performed by the host device for each frame of video data in a requested video sequence, comprising:

receiving a request packet including a stream identifier over the high speed serial bus from the video processing device requesting a frame of video data;

sending a plurality of data packets over the high speed serial bus to the video processing device after receipt by the host device of the request packet, wherein the plurality of packets include video data for the frame and the stream identifier; and

repeating the steps of receiving and sending for each frame of the requested video sequence.

37. (New) The method of claim 36, wherein a component of the video data has a precision greater than a byte and wherein the component of the video data is packed into bytes in the plurality of data packets.

38. (New) The method of claim 37, wherein the plurality of data packets includes a component size field indicating a number of bits per component.

Serial No. 09/054,864

Reply Filed: September 16, 2003

39. (New) The method of claim 36, wherein at least one of the data packets in the plurality of data packets includes a target field indicating a device to which the video processing device is directed to transfer the video data.

40. (New) The method of claim 36, wherein a data packet in the plurality of data packets includes a boundary signal if the data packet includes a last component of the video data of the requested frame.

41. (New) The method of claim 36, further comprising sending a data packet including a command field indicating a command to the video processing device over the high speed serial bus.

B1
Cont.
42. (New) A host device for transferring data to a video processing device using frame by frame flow control, comprising:

a memory;

an input for receiving request packets from the video processing device, wherein each request packet indicates a request from the video processing device to transfer a frame of video data, and wherein each request packet includes a stream identifier; and

an output for sending, in response to a request packet, a plurality of data packets including video data for the requested frame from the memory to the video processing device over the high speed serial bus, wherein each data packet includes the stream identifier and a boundary signal indicating whether the data packet ends with a last component of the requested frame.

43. (New) A host device for transferring data to a video processing device over a high speed serial bus, comprising:

a memory;

an input for receiving request packets from the video processing device over the high speed serial bus, wherein each request packet indicates that the video processing device is capable of receiving data, and wherein each request packet includes a stream identifier; and

Serial No. 09/054,864

Reply Filed: September 16, 2003

an output for sending, in response to a request packet, data packets including video data from the memory to the video processing device over the high speed serial bus at a packet rate set by the sender according to the received request packet, wherein each data packet includes the stream identifier.

44. (New) The host device of claim 43, wherein the request packets include a packet rate field that specifies a packet rate at which the host device is to send data to the video processing device.

B1
Concl.
45. (New) The host device of claim 44, wherein a component of the video data has a precision greater than a byte and wherein the components of the video data are packed into bytes in the data packets sent by the host device.

46. (New) The host device of claim 45, wherein the data packets include a component size field indicating a number of bits per component.

47. (New) The host device of claim 43, wherein a component of the video data has a precision greater than a byte and wherein the components of the video data are packed into bytes in the data packets sent by the host device.

48. (New) The host device of claim 47, wherein the data packets include a component size field indicating a number of bits per component.
